

**Application No. 09/756,140**

**Art Unit 1755**

**February 18, 2004**

**Reply to Office Action of August 26, 2003**

**REMARKS**

Applicants respectfully request the Examiner to reconsider the present application in view of the foregoing amendments to the claims.

Claim 1 has been amended. Claims 2-3 were previously canceled. Thus, claims 1 and 4-19 are pending in the present application. No new matter has been added by way of the amendment to claim 1, since the amendment has support in originally-filed claim 1 and in the paragraph bridging pages 4-5; page 10, line 17; page 12, lines 16-19; and page 13, lines 15-19 of the present specification. Thus, the amended claim presents no new issues requiring further search or consideration, because this claim deletes subject matter, and a claim of similar scope has previously been presented and subsequently examined.

It is thus respectfully requested that the present Amendment be entered into the Official File in view of the fact that the Amendment automatically places the application in condition for allowance. Further, the amendment herein addresses issues that were first raised in the outstanding Office Action (*i.e.*, at pages 2-5 of the Office Action). These issues were not made earlier, as the first indication to Applicants that the present amendments would be needed was in the present Office Action. Therefore, entry of the present amendment is proper, and is respectfully requested.

In the alternative, if the Examiner continues with the rejections of the present application, it is respectfully requested that the

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present Amendment be entered for purposes of an Appeal. The Amendment reduces the issues on appeal by overcoming the rejections under 35 U.S.C. § 102. Thus, the issues on appeal would be reduced.

Based upon the above considerations, entry of the present amendment is respectfully requested.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

***Issues Under Various Subsections of 35 U.S.C. §§ 102 and 103***

Claims 1, 4, 5 and 11-17 stand rejected under 35 U.S.C. §§ 102(a) or (e) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Wang et al. (US 2002/0077035; hereinafter "Wang '035"). Also, claims 6-10 and 18-19 stand rejected under 35 U.S.C. § 103(a) as obvious over Wang '035.

Further, claims 1, 11-14 and 16-17 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over WO 99/64527 (hereinafter "WO '527"; the Office Action refers to "WO 99/64572"). Also, claim 15 stands rejected under 35 U.S.C. § 103(a) as being obvious over WO '527 (as stated at page 3 of the Office Action) (these are new rejections).

In addition, claims 1 and 11-17 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. §

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103(a) as obvious over EP 919602 (hereinafter "EP '602") (these are new rejections) (as stated at page 3 of the Office Action).

Further, claims 1, 4, 11, 18 and 19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by "applicants own admission defined in the examples (trade names)" (as stated at page 4 of the Office Action) (this is a new rejection).

In addition, claims 1, 4, 11, 18 and 19 stand rejected under 35 U.S.C. § 102(b) as anticipated by Kurematsu *et al.* (U.S. Patent No. 4,618,569; hereinafter "Kurematsu '569") (this is a new rejection).

Also, claims 5 and 7 stand rejected under 35 U.S.C. § 103(a) as obvious over either (1) "applicants own admission defined in the examples (trade names)" or (2) Kurematsu '569 (new rejections).

These rejections respectfully are traversed to the extent deemed to apply to the claims as amended.

Distinctions over Wang '035

The cited Wang '035 reference discloses a polishing composition comprising an ion exchange material and a carrier (see claim 1 at Col. 7). However, Wang '035 fails to disclose or recognize an iminodiacetic acid as a functional group as instantly claimed. Thus, because "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," the cited Wang '035 reference cannot be a basis for a

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rejection under § 102. See *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Thus, because of the lack of disclosure of all features as instantly claimed, the rejection in view of Wang '035 is overcome. Reconsideration and withdrawal are respectfully requested.

Applicants also submit that the rejection under § 103(a) has also been overcome since a *prima facie* case of obviousness requires that the cited Wang '035 disclose all features as instantly claimed. See *In re Vaeck*, 947 F.2d, 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991). Thus, because a *prima facie* case of obviousness has not been established, this rejection has been overcome as well.

Further, Wang '035 does not disclose or recognize an effect of the instantly claimed functional group on polishing speeds of metals. Applicants submit herewith a Rule 132 Declaration in support of Applicants' position of patentability for the present invention. As can be seen from the Declaration, the instantly claimed abrasive has an unexpectedly and significantly higher polishing rate (*i.e.*, 4956 Å/min) over other abrasives employing polymer particles with different functional groups. There is no disclosure in Wang '035 of employing the functional group as instantly claimed, or such advantages thereof. Thus, Applicants respectfully submit that these rejections have been overcome. Reconsideration and withdrawal of these rejections are respectfully requested.

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Distinctions over newly cited WO '527

The same arguments with regard to Wang '035 apply to the cited WO '527 reference as well.

The Office Action refers Applicants to various parts of the cited WO '527 reference, such as the Abstract and pages 3, 4 and 6. WO '527 does disclose a composition comprising water, submicron abrasive particles, an oxidant and an organic polymer (see claim 1 on page 12). Also, the disclosed organic polymer has functional moieties having affinity to surface groups on silicon dioxide surfaces in order to provide a protective layer (see page 4, lines 4-7). These moieties are described as polar moieties such as hydroxyl, carboxy, carbonyl, alkoxy, sulphonyl and phosphonyl (see page 4, lines 14-21). However, WO '527 still fails to disclose the features and advantages of the present invention.

The present invention utilizes a polymer particle having a functional group that traps a metal ion, wherein the functional group that traps a metal ion is iminodiacetic acid. WO '527 fails to disclose the iminodiacetic acid as a functional group as instantly claimed. Thus, the rejection under 35 U.S.C. § 102 has been overcome.

Further, as shown in the Rule 132 Declaration submitted herein, the present invention of an abrasive containing a polymer particle having iminodiacetic acid as a functional group has unexpectedly achieved a

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higher rate of polishing than that containing a polymer particle having other functional groups. Such unexpected advantages are not recognized or even within the disclosure of WO '527.

Thus, Applicants respectfully submit that these rejections under §§ 102 and 103(a) have been overcome as well. Reconsideration and withdrawal thereof based on the above remarks and Rule 132 Declaration are respectfully requested.

Distinctions over newly cited EP '602

Reference is made in the Office Action to the Abstract and sections [0020]-[0034] of EP '602 (at page 3 of the Office Action). The cited EP '602 reference discloses a metal polishing agent comprising an aqueous emulsion comprising a complexing agent capable of reacting with a metal to be polished to form a water soluble metal complex and resin particles prepared by emulsion polymerization of a vinyl compound (see the Abstract; see also its claim 1 at page 6). EP '602 does describe some examples of a complexing agent that can react with a metal (see paragraph [0018]). However, the cited EP '602 reference fails to disclose the features as instantly claimed and does not recognize the advantages of the present invention.

As mentioned, the present invention employs a polymer particle having a functional group that traps a metal ion, wherein the functional group that traps a metal ion is iminodiacetic acid. In this regard, EP

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'602 fails to disclose the iminodiacetic acid as a functional group as instantly claimed. Thus, the rejection under § 102(b) has been overcome.

Also, the rejection under § 103(a) has been overcome since a *prima facie* case of obviousness requires that EP '602 disclose all features as instantly claimed. EP '602 fails to satisfy this requirement. The requisite motivation and reasonable expectation of success are also lacking since EP '602 does not even recognize the advantages of using the present invention (*i.e.*, higher polishing rate), nor does this reference give clear and particular guidance to one of ordinary skill in the art to using iminodiacetic acid as a functional group for a polymer particle as instantly claimed.

Thus, reconsideration and withdrawal of these rejections are respectfully requested.

Distinctions over newly cited "applicants own admission defined in the examples (trade names)" and newly cited Kurematsu '569

The present invention employs a polymer particle having a functional group that traps a metal ion, wherein the functional group that traps a metal ion is iminodiacetic acid. In this regard, neither the tradenames nor Kurematsu '569 discloses the iminodiacetic acid as a functional group as instantly claimed. Applicants also disagree with the comments in the Office Action regarding the term "abrasive" since the

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submitted Rule 132 Declaration does show the patentability of the present invention. Thus, the rejections under § 102(b) have been overcome.

Also, the rejections of claims 5 and 7 under § 103(a) have been overcome since a *prima facie* case of obviousness requires that the tradenames or Kurematsu '569 disclose all features as instantly claimed. The cited references fail to satisfy this requirement. The requisite motivation and reasonable expectation of success are also lacking since the cited references do not even recognize the advantages of using the present invention (*i.e.*, higher polishing rate), nor do the cited references sufficiently guide one of ordinary skill in the art to using iminodiacetic acid as a functional group for a polymer particle as instantly claimed. Thus, a *prima facie* case of obviousness has not been established, and these rejections have been overcome.

Thus, reconsideration and withdrawal of these rejections are respectfully requested.

#### **Conclusion**

Applicants respectfully submit that the present invention is patentably distinct from each cited reference of Wang '035, WO '527, EP '602, "applicants own admission defined in the examples (trade names)" and Kurematsu '569. Accordingly, Applicants respectfully request the

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Examiner to reconsider and to withdraw all rejections and allow the currently pending claims.

A full and complete response has been made to all issues as cited in the Office Action. Applicants have taken substantial steps in efforts to advance prosecution of the present application. Thus, Applicants respectfully request that a timely Notice of Allowance issue for the present case.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Eugene T. Perez (Reg. No. 48,501) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to 37 C.F.R. § 1.17 and 1.136(a), Applicants respectfully petition for a three (3) month extension of time for filing a response in connection with the present application. **The required fee of \$950.00 is being submitted with the Notice of Appeal filed concurrently herewith.**

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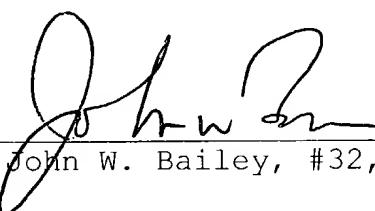
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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Declaration under 37 C.F.R. § 1.132